

10/516766

DT12 Rec'd PCT/PTO 03 DEC 2004

SEQUENCE LISTING

<110> Pastan, Ira H.
Nagata, Satoshi
Onda, Masanori
Numata, Yoshito
Santora, Kenneth
Beers, Richard
Kreitman, Robert
Sinha, Abhishek
The Government of the United States of America
as represented by The Secretary of the
Department of Health and Human Services

<120> Anti-CD30 Stalk and Anti-CD30 Antibodies Suitable for
Use in Immunotoxins

<130> 015280-464100PC

<140> WO PCT/US03/18373
<141> 2003-06-09

<150> US 60/387,293
<151> 2002-06-07

<150> US 60/411,032
<151> 2002-09-16

<160> 41

<170> PatentIn Ver. 2.1

<210> 1

<400> 1
000

<210> 2
<211> 118
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T6

<400> 2
Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Thr Pro Ser Gln
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Lys Tyr
20 25 30

Ser Ile His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Leu
35 40 45

Gly Met Ile Trp Gly Val Glu Asn Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 70 75 80

Lys Met Asn Ser Leu Gln Ser Asp Asp Thr Ala Met Tyr Tyr Cys Ala
85 90 95

Arg Lys Asp Leu Gly Leu Tyr Gly Met Asn Tyr Trp Gly Gln Gly Ile
100 105 110

Ser Val Thr Val Ser Ala
115

<210> 3

<211> 120

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T7

<400> 3

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Trp Met Asn Trp Met Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Gln Ile Tyr Pro Gly Asp Asp Asp Thr Asn Tyr Asn Gly Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Arg Arg Glu Thr Gly Arg Gly Ala Trp Phe Thr Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ala
115 120

<210> 4

<211> 120

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T13

<400> 4

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Ser Thr Gly Tyr Thr Asp Tyr Asn Glu Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Val Arg Arg Gly Ser Tyr Asp Gly Asn Pro Phe Ala Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Ser Val Ser Ala
115 120

<210> 5
<211> 117
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T14

<400> 5
Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Gly Val Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Ser Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Ser Asp Ser Val
50 55 60

Lys Gly Arg Leu Thr Ile Ser Arg Asp Asn Thr Lys Asn Asn Leu Tyr
65 70 75 80

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Arg Gly Pro Gly Gly Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Leu Thr Val Ser Ser
115

<210> 6
<211> 119
<212> PRT
<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T24

<400> 6

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30

Trp Ile Asp Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asn Ile Tyr Pro Ser Asn Ala Tyr Thr Asn Tyr Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Thr Ser Val Leu Asp Tyr Phe Tyr Ala Met Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Ser Val Thr Val Ser Ser
115

<210> 7

<211> 118

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T25

<400> 7

Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Asn Thr Ser
20 25 30

Gly Val Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Trp Trp Asp Asp Asp Glu Arg Tyr Asn Pro Val
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Ala Asn Val Asp Thr Ala Asp Ser Ala Thr Tyr Tyr
85 90 95

Cys Val Arg Ser Met Val Ala Trp Phe Pro Tyr Trp Gly Arg Glu Thr
100 105 110

Leu Val Thr Val Ser Ala
115

<210> 8
<211> 125
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) control HeFi-I

<400> 8
Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

Tyr Met Asn Trp Val Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu
35 40 45

Gly Phe Ile Arg Asn Lys Ala Asn Gly Tyr Thr Glu Phe Ser Ala
50 55 60

Ser Val Met Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Ser Ile
65 70 75 80

Leu Tyr Leu Gln Met Asn Thr Leu Arg Ala Glu Asp Ser Ala Thr Tyr
85 90 95

Tyr Cys Ala Arg Asp Pro Pro Tyr Gly Asn Pro His Tyr Tyr Ala Met
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
115 120 125

<210> 9
<211> 121
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) CL2

<400> 9
Glu Val Gln Leu Lys Gln Ser Gly Thr Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asn Ile Asn Pro Ser Asn Gly Gly Thr Asn Tyr Asn Glu Leu Phe
50 55 60

Lys Ser Lys Ala Thr Leu Thr Ile Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Arg Thr Glu Thr Ala Gln Ala Ser Pro Phe Ala Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 10
<211> 120
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) Ki-4

<400> 10
Gln Val Lys Leu Gln Glu Ser Gly Thr Glu Leu Ala Lys Pro Gly Ala
1 5 10 15

Ala Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Asn Thr Ala Tyr Thr Asp Tyr Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Lys Thr Thr Gln Thr Trp Gly Phe Pro Phe Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 11
<211> 120
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T420

<400> 11

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Asp Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Ser Thr Asp Tyr Thr Asp Tyr Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Thr Arg His Tyr Gly Ser Ser Tyr Gly Phe Ala Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ala
115 120

<210> 12

<211> 119

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T427

<400> 12

Gln Val Gln Leu Gln Gln Pro Gly Thr Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Phe Ser Phe Thr Ser Tyr
20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe
50 55 60

Lys Asp Arg Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Ser Glu Met Asp Tyr Tyr Phe Ala Met Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Ser Val Thr Val Ser Ser
115

<210> 13
<211> 112
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T405

<400> 13
Gln Val Gln Leu Gln Gln Ile Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Asn Asn Tyr
20 25 30

Trp Ile Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asn Ile Tyr Pro Ser Asp Ser Arg Ser Asn Tyr Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Thr Leu Gly Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
100 105 110

<210> 14
<211> 121
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T105

<400> 14
Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Asp Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr
85 90 95

Cys Ala Arg Arg Ala Asp Gly Leu Tyr Phe Tyr Leu Asp Val Trp Gly
100 105 110

Ala Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 15

<211> 109

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T6

<400> 15

Asp Ile Val Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Gly Thr Asn
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Phe
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Ile Gly
50 55 60

Ser Gly Ser Gly Thr Val Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr Asn Thr Tyr Pro Leu
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Glu Arg Ala
100 105

<210> 16

<211> 114

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T7

<400> 16

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Leu Glu Tyr Tyr
20 25 30

Gly Thr Thr Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser Leu Asn Ile His
65 70 75 80

Pro Val Glu Glu Asp Asp Ile Ala Met Tyr Phe Cys His Gln Ser Arg
85 90 95

Lys Val Pro Ser Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

Ala Asp

<210> 17

<211> 109

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T13

<400> 17

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly His Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Val Gln Val
65 70 75 80

Glu Asp Leu Ala Leu Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg Ala
100 105

<210> 18

<211> 115

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T14-A

<400> 18

Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Leu Ile His
20 25 30

Asn Gly Asn Ala Tyr Leu Gln Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ala Leu Lys Ile
65 70 75 80

Ile Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Thr
85 90 95

Thr His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Ala Asp
115

<210> 19

<211> 114

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T14-B

<400> 19

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Leu Glu Tyr Tyr
20 25 30

Gly Thr Thr Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser Leu Asn Ile His
65 70 75 80

Pro Val Glu Glu Asp Asp Ile Ala Met Tyr Phe Cys His Gln Ser Arg
85 90 95

Lys Val Pro Ser Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

Ala Asp

<210> 20

<211> 109

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T21

<400> 20

Asp Ile Gln Met Asn Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Thr Ile Thr Ile Thr Cys His Ala Ser Gln Asn Ile Asn Val Trp
20 25 30

Leu Thr Trp Tyr Gln Gln Lys Pro Gly Asn Ile Pro Gln Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Asn Leu His Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Gly Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Gly Gln Ser Tyr Pro Leu
85 90 95

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala
100 105

<210> 21

<211> 109

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T24

<400> 21

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
65 70 75 80

Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Val Asn Thr Leu Pro Arg
85 90 95

Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala
100 105

<210> 22
<211> 116
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAB) T25

<400> 22
Asp Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly
1 5 10 15

Glu Lys Phe Thr Val Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Ser Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ile Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Val Lys Ala Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln
85 90 95

His Tyr Arg Tyr Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
100 105 110

Lys Arg Ala Arg
115

<210> 23
<211> 113
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAB) control HeFi-I

<400> 23
Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Lys Ser Val Ser Ala Ser
20 25 30

Gly Tyr Asn Tyr Met His Trp Tyr Gln Gln Lys Ala Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile His Leu Ala Ser Asn Leu Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65 70 75 80

Pro Val Glu Glu Glu Asp Ala Ser Thr Tyr Tyr Cys Gln His Ser Lys
85 90 95

Glu Leu Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

Ala

<210> 24
<211> 107
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) CL2

<400> 24
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Gly Thr Asn
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
35 40 45

Tyr Ser Ala Ser Thr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 25
<211> 107
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) Ki-4

<400> 25
Asp Ile Val Leu Thr Gln Ser His Lys Ser Met Ala Met Ser Val Gly
1 5 10 15

Glu Arg Val Thr Leu Ser Cys Lys Ala Ser Glu Asn Val Asp Ser Phe
20 25 30

Val Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Arg His Ser Gly Val Pro Asp Arg Phe Al Y
50 55 60

Ser Gly Ser Gly Arg Asp Phe Thr Leu Thr Ile Ser Ser Val Gln Ala
65 70 75 80

Glu Asp Leu Ala Asp Tyr His Cys Gln Gln Asn Tyr Arg Tyr Pro Leu
85 90 95

Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 26

<211> 108

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T420

<400> 26

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Ser Val Gln Ala
65 70 75 80

Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Arg Thr Pro Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 27

<211> 112

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T427

<400> 27

Asp Ile Val Leu Thr Gln Ser Pro Thr Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly	Asn	Ser	Phe	Met	His	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Gln	Pro	Arg
35							40					45			
Lys	Leu	Leu	Ile	Tyr	Arg	Ala	Ser	Asn	Leu	Glu	Ser	Gly	Ile	Pro	Ala
50							55			60					
Arg	Phe	Ser	Gly	Ser	Gly	Ser	Trp	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Asn
65							70			75					80
Pro	Val	Glu	Ala	Asp	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Ser	Asn
85								90				95			
Glu	Asp	Pro	Arg	Thr	Phe	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	
100								105				110			

<210> 28
<211> 113
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T405

<400> 28															
Asp	Val	Val	Met	Thr	Gln	Thr	Pro	Leu	Thr	Leu	Ser	Val	Thr	Ile	Gly
1				5					10				15		

Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Ser	Asp	Ser
20								25				30			

Asp	Gly	Lys	Thr	Tyr	Leu	Asn	Trp	Leu	Leu	Gln	Arg	Pro	Gly	Gln	Ser
35							40				45				

Pro	Lys	Arg	Leu	Ile	Tyr	Leu	Val	Ser	Lys	Leu	Asp	Ser	Gly	Val	Pro
50							55				60				

Asp	Arg	Phe	Thr	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65									75				80		

Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Trp	Gln	Gly
85								90				95			

Ala	His	Phe	Pro	Arg	Thr	Phe	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	
100									105				110		

Arg

<210> 29
<211> 108
<212> PRT
<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T105

<400> 29

Asp Ile Val Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Asn Thr Asn
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Glu Ala Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 30

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Pseudomonas
exotoxin (PE) carboxyl terminus addition

<400> 30

Lys Asp Glu Leu
1

<210> 31

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Pseudomonas
exotoxin (PE) carboxyl terminus addition

<400> 31

Arg Glu Asp Leu
1

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:kappa Ig
subclass-specific 3' end primer

<400> 32
gactgaggca cctccagatg ttAA 24

<210> 33
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:gammal Ig
subclass-specific 3' end primer

<400> 33
cagggtcacc atggagttAG tttG 24

<210> 34
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:gamma2b Ig
subclass-specific 3' end primer

<400> 34
tccagagtTC caagtcacAG tcAC 24

<210> 35
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:kappa 5' end
primer

<400> 35
ggatggTggg aagatggata cagttggTgc agc 33

<210> 36
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:gammal 5' end
primer

<400> 36
aggggccagt ggatagacag atgggggtgt 30

<210> 37
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:gamma2b 5' end
primer

<400> 37
aggggccagt ggatagactg atgggggtgt

30

<210> 38
<211> 117
<212> PRT
<213> Mus musculus

<220>
<223> heavy chain variable region (VH) of anti-CD30
monoclonal antibody (MAb) T201

<400> 38
Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Ile Asp Tyr
20 25 30

Gly Val Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Met Ile Trp Gly Asp Gly Asn Thr Asp Tyr Asn Ser Gly Leu Lys
50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 70 75 80

Lys Val Asn Ser Leu Gln Thr Asp Asp Thr Ala Arg Tyr Tyr Cys Ala
85 90 95

Arg Pro Ser Thr Gly Thr Leu Phe Ala Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ala
115

<210> 39
<211> 110
<212> PRT
<213> Mus musculus

<220>
<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T201

<400> 39
Glu Ile Val Leu Thr Gln Ser Pro Thr Thr Met Ala Ala Ser Pro Gly
1 5 10 15

Glu Arg Ile Thr Phe Thr Cys Ser Ala Ser Ser Gly Ile Ser Ser Le
20 25 30

Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Phe Ser Pro Lys Leu Leu
35 40 45

Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Pro Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Gly Thr Met Glu
65 70 75 80

Ala Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Gly Ser Ser Ile Pro
85 90 95

Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala
100 105 110

<210> 40

<211> 112

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T408

<400> 40

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Ile Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asn Ile Tyr Pro Ser Asp Ser Tyr Ser Asn Tyr Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Thr Leu Gly Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
100 105 110

<210> 41

<211> 114

<212> PRT

<213> Mus musculus

<220>

<223> light chain variable region (VL) of anti-CD30
monoclonal antibody (MAb) T408

<400> 41

Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Ser Asp Ser
20 25 30

Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser
35 40 45

Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
50 55 60

Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly
85 90 95

Ala His Phe Pro Arg Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Ala